

Amendment Under 37 C.F.R. §1.116
Application No. 10/508,901
Attorney Docket No. 042735

REMARKS

I. Formal Matters - The Information Disclosure Statement Filed October 20, 2006.

Applicants filed an Information Disclosure Statement on October 20, 2006. To date the Examiner has not acknowledged receipt of the Information Disclosure Statement. The Examiner is requested to acknowledge receipt of the Information Disclosure Statement filed October 20, 2006 and to initial and return a copy of the Form PTO/SB/08.

II. The Rejection Under 35 U.S.C. §102(b)

Claims 1-3, and 7-10 are rejected under 35 U.S.C. §102(b) as allegedly being clearly anticipated by 6,077,639 (Semura et al).

Again, the Examiner did not list Semura et al USP 6,077,639 on a PTO Form 892. Applicants respectfully request that the Examiner properly list Semura et al on a PTO Notice of References cited (PTO Form 892).

In maintaining the rejection based on Semura et al, the Examiner states that it is his position that the claimed content of unreacted bisphenols would be inherent in the compositions of Semura et al. In making this conclusion, the Examiner notes that the AO in the alkoxyated BPA are C2-C3, the same as indicated in Applicants' specification.

Additionally, the Examiner notes that Applicants' specification states starting on page 4, line 30, that the alkoxyated BPA-AO compounds having such a characteristic are those that have been purified. Examiner states that column 2, lines 52-60, of Semura indicates that "therefore, in the present invention, in order to control the remaining amount of the BPA-AO having an

addition molar number of 3 or more in the polyester resin, it is preferable that a high purity product having a narrow distribution of alkylene oxide ... is contained in the alcohol component”.

Applicants respectfully submit that the present invention is not anticipated by or obvious over the disclosures of Semura et al and request that the Examiner reconsider and withdraw this rejection in view of the following remarks.

Applicants agree that Semura indicates that the AO (alkylene oxide) in the alkoxylated EPA (bisphenol-A) has 2 or 3 carbon atoms (namely AO is EO (ethylene oxide) or PO (propylene oxide)), and that Semura says, “[t]herefore, in the present invention, in order to control the remaining amount of the BPA-AO having an addition molar number of 3 or more in the polyester resin, it is preferable that a high purity product having a narrow distribution of alkylene oxide of BPA-AO ... is contained in the alcohol component” (Semura, column 2, lines 52-60 (emphasis added)).

However, the “high purity product” mentioned in Semura means “a product with narrow distribution (of molar number) of added alkylene oxide.” Semura does not mention the content of unreacted bisphenol A (which is different from alkylene oxide adduct). There are significant differences between the hydroxyl group of bisphenol A and the hydroxyl group of an alkylene oxide adduct. A bisphenol A is a phenolic hydroxyl group having acidic property, while, on the other hand, that of an alkylene oxide adduct is an alcoholic hydroxyl group. Thus, the products have very different characteristics and should not be dealt with on the same basis. A means for obtaining a “high purity product” having narrow distribution of molar number of added alkylene

oxide is not always the same as a means for obtaining the product with low content of unreacted bisphenol A, because the products are different from each other in their characteristics. And the “high purity product” with narrow distribution of number of added mole of alkylene oxide does not necessarily have a low content of unreacted bisphenol A.

Furthermore, Semura says “[t]he toner for electrophotography of the present invention comprises a polyester resin ... wherein the BPA-AO having an addition molar number of 3 or more in the polyester resin is not present, or if it is present, its remaining amount is small, the BPA-AO presumably being easily liquefied in the polyester resin at room temperature and having high politicizing effect” (Semura, column 4, lines 51-60 (emphasis added)). And Semura also says “[t]herefore, the toner is excellent ... in the offset resistance ...” (Semura, column 4, lines 60-63). Thus, there is no need to use BPA-AO with low contents of solid bisphenol A in order to attain the purpose of the invention in Semura.

Assuming that Semura teaches the preference for the toner with low content of other ingredients (i.e. impurities), regardless whether the ingredients are alkylene oxide adducts with an average added molar number of 2.0, the level of impurities in Semura would be quite different from that of the present invention. In the Examples of Semura, polyester resin containing 0.3% by weight (namely, 3000 ppm) of the adduct having an addition number of 3 mol or more was prepared using BPA-AO containing 3% by weight (namely, 30000 ppm; which is the lowest level disclosed in Semura's Examples) of the adduct having an addition number of 3 mol or more. On the other hand, the present invention uses bisphenol polyoxyalkylene ether with very low content

(preferably 15 ppm or less) of unreacted bisphenol as a raw material. The content level of Semura departs from the claimed level of 15 ppm or less in their impurity level contained in the polyester resin. Thus, the polyester resin of the present invention is quite different from the products in the Examples of Semura.

Although the Examiner recites Applicants' description beginning on page 4, line 30 in the instant specification, any of teachings about purification of ETA-AO used in the present invention is not found in the corresponding description. Indeed, the description on page 6, line 16 to 21 in the instant specification refers to a purification method as an example of methods for preparing polyoxyalkylene ether (A). However, the phrase of "high purity" in Semura and the "purification" referred in the present invention are quite different in their meanings (namely, one means whether low level of BPA-AO, having an addition number of 3 or more, which is easily liquefied at room temperature, and the other low level of unreacted bisphenols) and the levels of the quantity of the impurities in the toner binder.

Furthermore, Semura discloses none of the specific purification methods for preparing a product with high purity (content of unreacted bisphenols in the polyester resin being 15 ppm or less). Thus, it appears that Semura et al used a commercial product or a product obtained by a known manufacturing method. As mentioned in the Amendment filed June 14, 2006, a conventional BPA-AO contains as much as 20 ppm or 5% of unreacted bisphenols (see also page 6, lines 10 to 15, in the instant specification). And it is well-known that content of unreacted BPA in the polyester resin that is contained in such conventional types of BPA-AO preparations

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is normally beyond 15 ppm. See also the experimental examples in the Declaration filed with Amendment dated June 14, 2006, where the content of unreacted bisphenols made by prior art method is not below 15 ppm. Therefore, it is respectfully submitted that a person skilled in the art would understand that content of bisphenol A in polyester resin in the toner for electrophotography of Semura cannot be below 15 ppm.

In view of the above, it is clear that the present invention is novel over Semura. Furthermore, the effect of the toner of the present invention, that is, excellent long-term ability, cannot be expected from Semura or any of the other cited references. Thus, the present invention is unobvious from Semura.

For the above reasons, it is respectfully submitted that the subject matter of claims 1-3, and 7-10 is neither taught by nor made obvious from the disclosures of Semura et al or and it is requested that the rejection under 35 U.S.C. §102 be reconsidered and withdrawn.

III. Conclusion

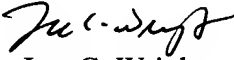
In view of the above, Applicants respectfully submit that their claimed invention is allowable and ask that the rejection under 35 U.S.C. §102 be reconsidered and withdrawn. Applicants respectfully submit that this case is in condition for allowance and allowance is respectfully solicited.

If any points remain at issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the local exchange number listed below.

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If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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